Energy, Earth, and Human Systems Modeling for an Oxyfuels Transition Strategy

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- CO_2 recovery from pulverized coal-fired power plants retrofitted for flue gas recirculation (Oxyfuel) and its application across the existing fleet linked ASPEN® engineering assessment to the AMIGA energy systems CGE economic model.
- The *transitional strategy* retrofitted Oxyfuels and then converted the power station site over to IGCC. This was accomplished by investigating the sensitivity to: Capacity and dispatch ; Policy timing ; Price of electricity and CO_2 ; Retrofit timing
- There are marked benefits with the implementation of Oxyfuels.
- A full assessment should link the DOE Office of Science on the integrated treatment of fossil energy, earth, and human systems at the regional scale.